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ABSTRACT

Since fall 1979, Pima Community College's East Education Center has provided educational services emphasizing lifelong learning and adult education in a leased office building. The building has proven to be an excellent educational facility in many ways; nevertheless, because of its small size and inefficient use of space, in 1979 the Board of Governors voted to build a permanent east side educational facility. The specifications contained in this report were developed to assist in the planning of a facility of not more than 35,000 square feet of inside space, which would not cost more than $3,500,000, would allow for future expansion or contraction, and would be able to house introductory and selected advanced courses, as well as some occupational offerings. The report begins with a statement of institutional philosophy and then assesses the desirable features and drawbacks of the current facility. It then presents general guidelines regarding the efficient use of internal space, flexibility, the future use of solar power, and pedestrian flow. It goes on to state requirements for office space for faculty and administration, storage space, instructional areas, the Learning Resource Center, and a student lounge. Additionally, specifications are presented for external areas. Finally, plans for the use and growth of the facility are discussed. (AYC)

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EDUCATIONAL SPECIFICATIONS

FOR

DEVELOPMENT OF AN

EAST SIDE EDUCATIONAL FACILITY

Date: June 18, 1979

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EDUCATIONAL SPECIFICATIONS

FOR

DEVELOPMENT OF AN EAST SIDE EDUCATIONAL FACILITY

BACKGROUND:

In the fall of 1976, Pima Community College's East Education Center opened in Building B of the Eastside Executive Park, located on the corner of Broadway and Pantano. This experiment has proven successful; approximately 3500 students enroll each semester. The EEC is scheduled to continue operating in this leased facility until June 30, 1981.

In January of 1979, the Pima County Community College District Board of Governors voted to purchase land and build a permanent east side educational facility. The property selected consists of 60 acres near the corner of Pantano and Irvington. The facility to be built is intended to replace the current leased facility.

ASSUMPTIONS:

This document is intended to provide educational specifications to assist the architect in developing plans for the construction of such a facility. The committee developing these specifications assumed the following parameters:

1. The facility should not include more than 35,000 of square feet of inside space.
2. The total project development costs, including site acquisition should not exceed $3,500,000.
3. The facility to be developed should include enough flexibility to allow for future expansion or contraction.
4. The program contained in the new facility will provide quality introductory courses in most transfer disciplines, advanced courses in some disciplines and some occupational offerings.

INSTITUTIONAL PHILOSOPHY

The Pima Community College Catalog for 1978-79 lists the following goals: To provide educational opportunities that facilitate human personal development;

Develop an environment that promotes independent thinking and effective communication;

Prepare students for entry into and appreciation of actual careers;

Develop an instructional program that accommodates individual differences, such as, but not limited to, learning rates, aptitudes, prior knowledge, etc.;

Engender in each student a concern for excellence and a desire for continuous learning;

Develop an institution whose total environment is dedicated to learning and open to those who desire to learn;

Utilize the total community as a laboratory for learning;

Contribute to the educational, social and cultural development of Pima County;

Institute an organizational concept of defining outcomes, differentiating processes, and evaluating results for all undertakings;

And provide for continuous college evaluation.

As a unit within Pima Community College the East Education Center certainly is intended to work toward those same institutional goals. In addition however, the East Education Center has its own unique mission within the Pima Community College philosophy. It is the function of the East Education Center to be the neighborhood college

for residents of east Tucson. This implies that the eastside facilty should have a special emphasis on lifelong learning and adult education. Fully employed adults are often unable to arrange time to drive across town to take one or more courses at one of the other campuses. It is the intention of the East Education Center to prove that learning can be both meaningful and enjoyable.

The neighborhood college concept implies that the educational facilities must be readily accessible to all potential students. It should be possible for students to come and go from the classroom and from the campus several times throughout the day.

ASSESSMENT OF THE CURRENT FACILITY:

The facility which is currently leased to house the East Education Center is a remodeled office building. While there are some problems with the building, it has proven to be an excellent educational facility. Positive factors relating to the current facility would certainly include the following:

1. The compact nature of the building creates a sense of smallness and harmony certainly unparalleled in other college settings handling as many as 3500 students.
2. The proximity of the parking to the building makes coming and going from the facility extremely easy.
3. The large number of windows in the building creates an open and airy feeling which is conducive to quality education.

The major shortcoming of the facility has to do with size. It is understood that a facility with 31,525 square feet can only accommodate a limited number of programs. However, because of the temporary nature of the lease arrangement, it is impractical to

move walls to maximize the utilization of the space which is available. It is felt that by utilizing space effectively in the new facility, it will be possible to make more efficient space utilization.

EDUCATIONAL SPECIFICATIONS - GENERAL GUIDELINES:

The facility should meet the following general guidelines:

1. The extremely high rate of internal space utilization efficiency is desired. Because of the mild Arizona climate, it should be possible to nearly eliminate internal hallways. Using covered walkways and external classroom entrances should enable considerably expanded space utilization.
2. The feelings of cohesiveness, openness, and airiness which are enhanced by the current facility should be maintained in the new facility.
3. Because of the ever dynamic nature of community college curriculum, it is necessary to maintain a flexible facility. For that reason, it is recommended that the new facility hold the number of internal support walls to a minimum.
4. It is anticipated that this facility might be the first phase of the development of a campus on the east side of Tucson. Therefore, it is recommended that this facility should be sufficiently flexible to allow for considerable expansion. This implies a design scheme for the original facility which will allow units of varying sizes (some smaller than 30,000 square feet, some larger) to be added to the original facility without appearing to be "tacked on."
5. The energy shortage is an ever increasing problem throughout the world. In light of this shortage scientists are rapidly developing cost effective technology to utilize solar energy

for heating and cooling. In light of this development, it is recommended that the new facility be adaptable for later installation of solar powered heating and cooling units.

6. Easy and comfortable pedestrian flow should be accommodated. This implies parking as close to the building as possible, comfortable walkways, and ample directional signs.

OFFICE SPACE:

A. Faculty:

Office space should be provided for twenty full-time instructional faculty. Each faculty member should be provided with sufficient space for a desk, two medium sized bookshelves, a file cabinet, and a side chair. All of the offices should have space for a coat hanger and a small chalkboard or a bulletin board. Windows should be provided in as many offices as possible. Each faculty office should be equipped with a jack for telephone service and accessible electric outlets.

A single office/workroom is needed to provide space for associate faculty. This room should have sufficent space for four working desks with swivel chair and side chair, a worktable and six file cabinets. Coat hanger, chalkboard and bulletin board will also be needed.

Faculty offices should be relatively centrally located within the facility. To maintain the cooperative relationship between individual faculty members, it is recommended that all faculty offices be located close to one another. In addition, it is imperative that faculty offices have easy access to administrative offices, classrooms and faculty support services.

B. Administration

The office for the Dean should accommodate a desk, two medium size bookcases, a credenza, and a conference table to seat 8 to 10 people. The office of the secretary to the Dean should be situated in a manner to control access to the Dean's office. The secretary's office should accommodate a secretarial deak, a bookcase, three file cabinets and visitors' chairs for 4 visitors.

The Assistant Dean for Educational Services should have an office to accommodate a desk, side chair, credenza, two medium size bookcases and a file cabinet. This office should have access controlled by a secretary to the Assistant Dean for Educational Services. The secretary should have a secretarial desk and two file cabinets. Close to the office of the Assistant Dean for Educational Services should be the Contracts and Certification Office. This office should accommodate one staff member with an office desk, typewriter, chair, 3 file cabinets, a storage cabinet, 20 linear feet of secured bookshelves, a worktable, and a visitors' chair.

The Assistant Dean for Registration should have an office to accommodate a desk, side chair, worktable, bookcase, file cabinet and three visitors' chairs. The office of the Assistant Dean for Registration should have access controlled by a secretary equipped with a desk, and two file cabinets. The Asst. Dean for Reg., should have easy access to the registration area. However, it is important that other administrators, faculty, and staff members at the college should be able to gain access to the office of the Asst. Dean for Reg., without going through the registration area itself.

The Office for Registration and Records should accommodate three staff members, each with an office desk, typewriter, and side chair. The registration counter should accommodate four computer terminals. The registration area should accommodate six file cabinets. Storage space should accommodate 20 feet of book-shelving to handle college catalogs. In addition, approximately 30 linear feet of shelving at least one foot deep will be needed to store records and computer printouts.

The Office of the Business Agent should accommodate a desk, swivel chair, two medium size book cases, a worktable, file cabinet, and visitor's chairs. It should have easy access to both the cashiering area and the business services area. It is important that other administrators, faculty and visitors gain access to the business agent through the business services area, not the cashiering area. The cashiering area should accommodate two staff members located for privacy and security. Each should have an office desk with typewriter and side chair. The room should accommodate a small safe. The cashiering counter should accommodate one computer terminal. The business services area should have ample space for one secretarial desk with swivel chair and typewriter, a worktable for mail handling, a receiving area for materials and supplies, two storage cabinets, and three lateral file cabinets. The business services area should be readily accessable for deliveries.

The flow of people into and around the offices for educational services, registration and business services is important. During registration periods, students seek advice primarily in the student services area (to be mentioned later) and then proceed to the registration counter. After registering, students proceed to the cashiering counter to pay their fees. Faculty, staff, and

visitors also have reason to see either of the Assistant Deans, or the Business Agent. It is, therefore, recommended that a reception area common to the three offices be provided in a manner to accommodate six to eight visitors.

The office of Faculty Support Services provides typing and duplication services primarily for faculty, and secondarily for administrative offices. This office should accommodate three secretarial desks with typewriters and side chairs. In addition, two typing tables for student workers will be necessary. The office should provide space for two copy machines: one Xerox 7000 and one Savin plain paper copier. Three large tables for work space will also need accommodation. A small secure storage area to store paper and other supplies will be necessary. Finally, this office also serves as a faculty mail room. Wall space for mailboxes will be necessary.

The faculty support services office should be centrally located, and have easy access to faculty.

Space will be needed for audio-visual production and distribution. This area should be located close to the learning resource center. Access to the area should be possible through the LRC or through a separate entrance. The area should have easy access to faculty offices and classrooms. Sufficient space should be provided to accommodate a secretarial desk with typewriter and side chair, a file cabinet, a worktable for equipment repair, a drafting table, and significant secured storage area for projectors and video tape equipment. Probably 175 square feet of storage with ample shelving will be needed.

A work area for the Director of Buildings and Grounds will be necessary. This workroom should accommodate a desk, and workbench.

In addition, a general storage (200 wq. ft.) area will be needed. This storeroom will be used for spare furniture and equipment to provide care for lawns and external courtyards. Also two janitorial storage areas (30 sq. ft. each) complete with floor sinks will be needed. It is anticipated that janitorial services will continue to be provided by contracted outside agency.

The Student Services unit provides guidance, counseling, academic and career advising, veteran's information, and financial aids information. The unit will need offices for 4 counselors and a VA/Financial Aids Advisor. Each office should be furnished with a desk, file cabinet, bookcase and 3 side chairs. Entry to the 5 offices should be controlled through a reception and intake area. The reception area should provide seating for 5 visitors as well as a secretarial desk, a typing table and 2 file cabinets. The student services area should be centrally located with ease of access to the registration process, the LRC and faculty offices. It is important that it be possible for students to "drop-in" the student services area while involved in their daily activities in classroom work. Finally, space for a general college receptionist who operates the EEC switchboard should be provided at or near the general entrance to the college.

INSTRUCTIONAL AREAS:

A minimum of thirteen general purpose lecture/discussion classrooms should be provided. Each should adequately accommodate 40 students, either in tablet armchairs or tables and chairs. Each should be able to handle chalkboards, projection screen, computer access point (telephone jack), TV antenna access point, lecture table, instructor chair, and sufficient moveable storage cabinets to secure equipment. Even those classrooms equipped with tablet armchairs should have at least one table to

facilitate physically handicapped students. Two of the twelve rooms should be equipped with map/chart mountings. Two of the classrooms should have chalkboards on the side walls as well as the front wall.

It is desireable to have one large lecture room accommodating at least 100 people. The seating should be tiered with perhaps a four-inch rise in approximately eight rows. The room should be subdividable into two general lecture classrooms and when opened it should be suitable for a large viewing audience. This larger room should have an oversized projection screen, an instructor demonstration table, a projection outlet sufficiently distant to fill the over-sized screen, a permanently installed large screen television receiver, and the regular equipment needed for any classroom.

A smaller room to accommodate small classes (twenty-five students) or conferences should be provided. The room should be carpeted. It is desireable that this room be readily accessible to student services and administration as well as the instructional area.

A computer science laboratory will be needed. The laboratory should accommodate worktables and chairs for 15 students, a desk, chair, file cabinet and bookcase for the computer lab technician, as well as the following computer related equipment:

Unit	Actual Size	Space Required	Totals (sq.ft.)
RJE	2.5' X 4'	4.2' X 5.5'	23.1
Printer	1.6' X 2.3'	3.3 X 2.3'	7.6
3-LA36	2' X 2.3'	2' X 4'	24.0
VTO5	2' X 3'	3.8' X 3'	11.4
4-Keypunch	2.5' X 3'	4.3' X 3'	51.6
2-Cabinets	1.5' X 3'	2.9' X 3'	17.4
Storage area	2.5' X 6'	2.5' X 6'	15.0
TV Display	2' X 1.5'	2' X 1.5'	3.0
Overhead Projector	2' X 1.5'	2' X 1.5'	3.0
2-micro Computers	2' X 3'	3.8' X 3'	22.8

The room will require a telephone at the desk of the computer lab technician, telephone jacks by each computer terminal, dedicated telephone lines to the RJE, and electrical outlets for each machine. It is imperative that the room have its own thermostatic control for controlling heating and cooling. The ideal temperature for this equipment is approximately 72^{o}.

Two specialized classrooms will be needed for the Office Education program. One classroom should be equipped with forty student stations. Each student station should include an L-shaped desk, a typewriter, a tape player and headset, and a stenographer chair. The room will require four learning carrels, each equipped with typewriter caramate and a stenographer chair. Storage space for cassette tape, file cabinets, six regular file cabinets and four large storage cabinets. A sink with counter and storage space under the sink and counter will be needed. The teacher demonstration station should be equipped with an office desk with a typewriter and stenographer chair, and a two-drawer file cabinet. The lab assistant station should be equipped with an office desk with a typewriter and stenographer chair and a two-drawer file cabinet. In addition, two work tables, one walled with chalkboards, and a single bulletin board will be required in the room.

A second office education classroom should be equipped with twenty-four student stations, each including an L-shaped desk with typewriter and a stenographer chair. Storage space should be provided for six file cabinets, and four large storage cabinets. A sink with counter and storage space under the counter will be needed. Two stations for teacher demonstration and a lab assistant each should be equipped

with an office desk with typewriter, a stenographer chair, and a two-drawer file cabinet. Space for stencil and fluid duplicators, stencil facsimile copier, a photo-copier, and two worktables will be needed. Traditional chalkboards, bulletin boards, and a telephone will be necessary in the room.

A specialized room for individualized instruction in reading will be needed. This room should accommodate 30 student stations in carrels and/or at tables. Space for three filing cabinets and three large storage cabinets will be needed. The room should accommodate an instructors' workstation as well.

A room for tutorial assistance will be needed. This room should accommodate an instructors' desk or workstation, and nine over-sized sound deadening carrels. The carrels should be large enough to allow a tutor and student to work together. In addition, three file cabinets and two large storage cabinets should be accommodated. The room should be carpeted and accoustically equipped to reduce noise. A small room for placement and assessment testing should be provided. Ideally, this room would be in close proximity to: 1) the tutoring area, 2) the reading laboratory, 3) student services and 4), the LRC. The room should accommodate 10 people working in individualized carrels or at tables. Storage space for 2 file cabinets and a desk for the test monitor should be provided.

A nursing clinical area should be provided. This specialized laboratory should have adequate space for at least 4 bed stations with curtaining (as in a hospital), a clinical sink and approximately 70 cubic feet of storage space.

A multi-purpose introductory science laboratory will be needed. This room should accommodate 20 laboratory stations at tables equipped to handle elementary courses in biology, physics, and astronomy. Each lab table should be plumbed to handle both gas and vacuum pumps. In addition, at least four sinks with working tables should be provided around the outside edge of the room. An instructor demonstration table with sink, vacuum pump, and gas outlet should be located at the front of the room. Three small storage rooms (100 sq. ft. each) should open onto the laboratory. The storage rooms would be used to store equipment for teaching the various disciplines handled in the laboratory.

SERVICES TO STUDENTS:

The Learning Resource Center (Library) should be centrally located on the campus. It is important that the facility be developed in such a manner as to allow expansion as the campus grows. It is important that the LRC be located in close proximity to the audio-visual distribution area, the student services area, and to the tutoring area. The initial phase of the LRC should provide seating for 85 students. Forty-five of those seats should be provided in individual study carrels (25 "wet" and 20 "dry"), 25 at library tables, and 15 in "leisure seating," approximately 1200 linear feet of shelving will be needed to accommodate books and other materials. Consideration must also be given to the need for a circulation/reserve area which would accommodate 4 file car catalog cabinets, 72 linear feet of shelving, a desk, and other smaller equipment. A card catalog, copy machine and a micro-film reader/printer will be made available to all students in the LRC.

Workspace in an adjacent office should accommodate three desks, a worktable, and two file cabinets and 72 feet of book shelving.

A student lounge, or commons area will be required. The commons area should provide some leisure or lounge type seating, a small television viewing area, and seating space at tables appropriate for eating to accommodate approximately 75 students. The eating area should be arranged in a manner to provide a smoking, as well as a non-smoking area. Ideally, the eating area would flow through some sort of glass wall onto an outside lounge area as well. The commons area should accommodate six food/drink vending machines. Adjacent to the student's commons area should be 1) a small office for the Director of Student Activities, (This office should accommodate a desk, bookshelves, a file cabinet, and 3 side chairs.) 2) a small employee lounge to accommodate approximately 15 staff members in leisure chairs and 3), space for the preparation of short-order style food.

Needless to say, restrooms should be accessible to all areas of the campus and equipped for handicapped.

EXTERNAL AREA:

A. COURTYARDS

It is hoped that wise use can be made of the outside spaces surrounding the building (s) to be developed. Covered walkways and open courtyards can add significantly to the much needed student lounge areas. While most of the landscaping will be natural desert, one or more irrigated courtyards with grass, planters and decorative fountains would add to student enjoyment. It is suggested that a ramada with approximately six picnic tables could be used for eating or for an occasional outside class meeting.

B. SECURITY

It is anticipated that vandalism might be a problem. It is hoped that the facility might be designed in such a manner that by closing a small number of decorative iron gates, it might be possible to completely enclose the building (s) and courtyards. It should be possible to construct such a security system which would not destroy the beauty of the site and the facility. It will also be necessary to have a secured place to enclose two college vehicles that might be left overnight. Finally, for both personal security and aesthetic purposes, it would be desirable to have decorative lighting in the parking lots, on walkways, and in the courtyards.

C. PARKING AND TRAFFIC

Because of the nature of the student body, it is imperative that parking be as close to the building (s) as possible. Parking should be provided for 650 automobiles. Special spaces should

be provided for handicapped parking.

Delivery vehicles will need access to the facility in location (s) to provide deliveries to the business services area, the bookstore, and the food service.

The site is not currently on any public transportation route. However, it is anticipated that the construction of the PCC facility will necessitate such transportation. It will, therefore, be necessary to provide one sheltered bus stop in/or near the parking area.

MASTER PLAN:

The East Education Center currently handles approximately 3500 headcount students and approximatley 1400 full-time student equivalents. Of that number, approximately 800 are day full-time student equivalents. It is anticipated that the east side facility will eventually grow to house approximately 2100 day full-time student equivalents.

The nature of the program which will serve these students is as yet undetermined. It is, therefore, important that this first facility be considered the initial phase of a project which requires significant flexibility in its future development. The first phase should be developed in such a manner that the greatest number of options for future growth and expansion are possible.

The 60-acre site is surrounded by property which is currently planned to be developed into a regional city park. The potential for joint space utilization is considerable. This

factor should be considered when designing the initial phase of the east side facility to provide for maximum flexibility in future development.

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